Mysore Local Examinations.

Notification D. No. 37-15/38-39—*E*2. 3477-16/38-39, *dated 5th December* 1938.

In modification of this Office Notification D. No. 7-4—E.2 38-8/33-34, dated the 10th July 1934, publishing the rules and syllabuses relating to the V. T. C. Examination, it is hereby notified that the syllabus in *Elementary Mathematics* published on page 11 of the said notification for the V. T. C. First Examination is revised as below.—

This syllabus will come into force with effect from the Examination of 1941.

Arithmetic :—

I. Numeration and Notation. Importance of the Decimal System of Notation. The four main rules of Arithmetic.

II. Tests of divisibility by 2, 3, 5, 9 and 11, Factorisation, Multiplication and Division by factors; Tests of accuracy.

III. G. C. M. and L. C. M. Relation between the two as applied to two numbers; simple problems.

IV. Fractions—Vulgar and decimal; conversion of vulgar fractions into decimals and *Vice-versa*;
Addition, Subtraction, Multiplication and Division of fractions (including decimals).
Ideas of approximations; idea of recurring decimal.

V. The Metric system; Tables of money, weight, measure and time in common use; problems involving them. Decimalisation of concrete quantities.

VI. Simple and compound practice; Bills of parcels.

VII. Ratio and proportion, the rule of three; proportional parts and simple partnership.

VIII. Square Root.

IX. Square measure; Area of a square and rectangle.

X. Cubic measure; Volume of a cube and rectangular box.

XI. Averages; Percentages; Income-tax; Profit and Loss; Mixtures (direct problems).

XII. Time and Work. Time and Speed. (Complicated problems need not be set.)

XIII. Simple Interest; Compound Interest. (Calculation of Compound Interest, Amount and Principal only.)

XIV. Simple statistical graphs.

Geometry:—

Elementary notions of solids, surfaces, lines and points as illustrated from a cube, cone, cylinder and pyramid. Use of the foot-rule, compasses, protractor and set-squares. Experimental study of the following properties of straight lines, triangles, rectangles and parallelograms.

(*a*) Properties of straight lines :—

(1) The adjacent angles which one straight line makes with another straight line on one side of it are together equal to two right angles.

(2) If at a point in a straight line two other straight lines are drawn on opposite sides of it, making the adjacent angles together equal to two right angles, then these two straight lines are in one and the same straight line.

(3) If two straight lines cut one another, the vertically opposite angles are equal.

(*b*) Congruence of triangles :—

Two triangles are congruent under the following conditions :—

When (1) Two sides and the included angle of the one are respectively equal to those of the other.
(2) Three sides of the one are respectively equal to those of the other.
(3) One side and two angles of the one are equal to the corresponding parts in the other.

(*c*) Properties of triangles :—

(1) The angles at the base of an isosceles triangle are equal.
(2) If two angles of a triangle are equal to one another, then the sides which are opposite to the equal angles are also equal.
(3) Any two sides of a triangle are together greater than the third side.
(4) Perpendicular is the shortest line that can be drawn from the given point to a given straight line.

(*d*) Properties of parallel straight lines :—

(1) If a straight line cuts two other straight lines so as to make—
(i) one pair of alternate angles equal.
(ii) one pair of corresponding angles equal, or
(iii) the interior angles on the same side together equal to two right angles,
then, in each case, the two straight lines are parallel.

(2) If a straight line cuts two parallel straight lines then—
(i) the alternate angles are equal,
(ii) the corresponding angles are equal,
(iii) the interior angles on the same side are equal to two right angles.

(*e*) Angle properties of a triangle and a four sided figure :—

(1) The three angles of a triangle are together equal to two right angles.

(*f*) The properties of a parallelogram :—

(1) the opposite sides are equal,
(2) the opposite angles are equal,
(3) the diagonals bisect one another,
(4) each diagonal bisects the parallelogram.

Problems :—(Proofs are not required).

(1) to bisect a given angle ;
(2) to bisect a given straight line ;
(3) to draw a perpendicular to a given straight line at a given point in it ;
(4) to draw a perpendicular to a given straight line from a given point outside it ;
(5) at a given point in a given straight line, to make an angle equal to a given angle ;
(6) through a given point, to draw a straight line parallel to a given straight line ;
(7) to divide a given straight line into any number of equal parts ;
(8) to construct a triangle being given two sides and the included angle ;
(9) to construct a triangle being given three sides ;
(10) to construct a triangle being given one side and two angles ;
(11) to construct a triangle being given two sides and a non-included angle ;

(12) to construct a right-angled triangle being given the hypotenuse and a side;
(13) to construct a quadrilateral being given four sides and a diagonal;
(14) to construct a parallelogram being given two adjacent sides and the included angle;
(15) to construct a square on a given straight line.

Areas :—

Areas of a rectangle, parallelogram and triangle, treated experimentally.

Experimental proof of the following property of a right-angled triangle.

In a right-angled triangle the square on the hypotenuse is equal to the sum of the squares on the other two sides.

Calculation of the length of a side of a right-angled triangle when the other two sides are given.

Circle and its properties :—

A circle and its definition, ideas of symmetry, simple properties of the chord and its relation to the centre.

The following problems : —

(1) To find the centre of a circle when an arc of the circle is given.
(2) To bisect a given arc.
(3) To draw a tangent to a circle from an external point.
(4) To draw the in-circle of a triangle.

Algebra :—

Algebra as generalised arithmetic; positive and negative quantities; the four main rules applied to algebraic quantities, Index Law for positive integral indices; algebraic terms and expressions; brackets.

Substitution (Evaluation).

Symbolic representation; the simple equations; problems leading thereto.

Identities :—P $(a \pm b) = Pa \pm Pb$.

$(a+b)(a-b) = a^2 - b^2$

$(a \pm b)^2 = a^2 + b^2 \pm 2ab$.

and their use in arithmetic (simple cases).

Mysore Local Examinations.

Notification D. No. 36-14—38-39, *E2.* 3477-16—38-39, *dated 6th December* 1938.

In modification of this Office Notification No. D. 7-4—E2. 38-8/33-34, dated the 10th July 1934, publishing the rules and syllabuses relating to the Vernacular Teachers' Certificate Examination and Notification D. No. 33-19 of 36-37—E2. 4505/34-35, dated 11th November 1936, publishing the revised syllabuses in Human Physiology and Hygiene (Biology) under Elementary Science, it is hereby notified that the syllabus in Elementary Science including Biology published on page 18 of the said notification for the V.T.C. First Examination is revised as below :—

THIS SYLLABUS WILL COME INTO FORCE WITH EFFECT FROM THE EXAMINATION OF 1941.

A.—Physics.—

1. Measurement of the linear dimensions of a rectangular box or a table in British and Metric units and the relation of the inch to the centimetre. Notion of a cubic centimetre. Use of the graduated jar in determining the volume of a solid.

2. Meaning of the weight of a body. Distinction between mass and weight. Description and use of a common balance and of a spring balance.
3. Density treated experimentally in metric units.
4. Distinctive properties of solids, liquids and gases.
5. Description of the simple mercury barometer and its use in finding pressure of the atmosphere.
6. Experimental verification of the Principles of Archimedes and the determination of the specific gravity of heavy insoluble solids.
7. Reasons why some bodies float on water. Use of the common lactometer.
8. Description, action and use of the syringe, lift-pump, the siphon and the inflator.
9. Meaning of centre of gravity. Stable, unstable and neutral equilibria, lever, fixed and single movable pulley and the inclined plane studied experimentally with illustrations from practical life.
10. Expansion of solids, liquids and gases under heat (treated qualitatively) with illustrations.
11. Description of a Fahrenheit thermometer and the meaning of its fixed point. The clinical thermometer.
12. Experimental study (qualitative) of conduction, *convection* and radiation of heat with illustrations from practical life. Use of asbestos as a non-conductor of heat. Study of Thermos flask.
13. Production of heat by friction (qualitative). Heat is a form of energy as illustrated in a steam engine.
14. Light travels in straight lines. Shadows and eclipses. Pin-hole camera. Laws of reflection of light. Determining the position of the image in a plane mirror experimentally. Bending of light rays while they travel from air into glass or water. Use of convex lens as a simple microscope. The human eye as a lens. Short sight and long sight and their remedies. The magic lantern. Decomposition of white light by a prism.
15. How sound is caused. Mode of transmission of sound in air. Echoes.
16. Natural and artificial magnets. The earth as a magnet. The mariner's compass.
17. Production of electricity by friction. Lightning and lightning conductors simply explained.
18. Description and use of Lechlanche Cell. Dry Cell. Electro-plating. Electric glow lamp. Electromagnet. Electric bell.

(Principles of dynamo, motor and telephone may be explained—non-examination subjects).

B —Chemistry.—

1. Solution of solids, liquids and gases in liquids. Filtration, decantation, evaporation, crystallisation and distillation. Mention of distillation of sandal oil.
2. Physical and Chemical changes. Elements and compounds. Mixtures and compounds.
3. Burning of substances in air—sulphur, magnesium, phosphorus and candle.
4. Action of heat on red oxide of mercury, red lead, potassium chlorate and potassium nitrate.
5. Preparation, properties and uses of oxygen.
6. Preparation, properties and uses of hydrogen.
7. Air and its constituents; composition of air by volume as determined by the bell-jar experiment.
8. Preparation, properties and uses of carbonic acid gas. Action of water on quick lime. Hard and soft waters.
9. Carbon—occurrence, forms and uses.

10. Properties and uses of sulphur.
11. Use of phosphorus in matches and of bones as manure.
12. Properties and uses of sulphuric acid and ammonia.
13. Properties and uses of iron, copper, aluminium, silver and gold.
13. Properties and uses of copper sulphate, magnesium sulphate, ferrous sulphate, alum, sodium carbonate, sodium hydroxide, sodium chloride, silver nitrate, potassium permanganate and zinc oxide.

C.—Biology.—

Plant Life.

1. *The plant body and its parts.*—Roots and the work of absorption; the stem and the conduction of sap; ascent of water in plants shown experimentally; leaves and the manufacture of food; photo-synthesis; storage of food in plants.
2. Respiration of plants treated experimentally.
3. Reproduction of plants. Work of flowers, pollination and fertilization. Formation of fruits and seeds.
4. Dispersal of seeds and fruits.
5. Adaptation of plants to their surroundings.
6. Life history of any two plants.

Animal Life.

1. Locomotion in animals—man, quadruped, bird, snake, frog and fish.
2. Feeding habits of animals; how animals obtain their food and swallow it—cow, horse, cat, dog, bird, frog, snail, earth-worm and insect.
3. Breathing of animals—respiration of mammals, birds, frogs, fishes and insects.
4. Life histories of the frog, butter-fly, house-fly and mosquito.
5. Social life among animals; honey-bees, ants, wasps and termites (white ants).
6. Interdependence of plants and animals.

Human Physiology.

I. Parts of the human body, their function.
II. Circulation of blood in body.
III. Respiration. Pure and impure air. Ventilation.
IV. Food and digestion.
V. Excretory organs and their functions.
VI. Nervous system and sense organs.

Hygiene.

1. Cleanliness—General and personal.
2. Clothing.
3. Food—wholesome food. Eating habits.
4. Fresh air. Sun light.
5. Breathing —Proper methods.
6. Sleep.
7. Care of eyes, ears and teeth.
8. School —Cleanliness—Proper use of school equipment.
9. School doctor—Visits—Importance of medical inspection.
10. Roads—Cleanliness in roads and safety first.

11. Exercises and games.
12. Infectious diseases—How to avoid them. Mode of spread of common diseases, *viz.*, Plague, Cholera, Dysentery, Typhoid, Small-pox and other vaccinial diseases—sore eyes—itches and other common skin diseases—Common colds—Influenza, etc.
13. Tuberculosis. Nature of disease. Prevention.
14. Role of animals and insects in the transmission of diseases, *e.g.*, mosquito, fly, flea, rat, dog, etc.

Demonstrations and practical knowledge as far as possible.

BOOKS RECOMMENDED.

1. Introduction to Biology by Mr. M V. Sundaresan.
2. First Courses in Biology by Bailey and Coleman.
3. Life by Shipley.
4. Everyday Science.
5. Food.
6. Physiology by Foster and Shore.
7. First Aid by Mackenzie.
8. School Hygiene.
9. The First Laws of Health by Lt.-Col. J. W. D. Megaw (Indian Red Cross Society).
10. Manual for School Course by Mackenzie.

M. SULTAN MOHIYUDDIN,
Offg. *Director of Public Instruction.*

GOVERNMENT TRAINING COLLEGE, MYSORE.

Notification dated 9th January 1939.

Preliminary Examination for selection of candidates for the Pandits' and Moulvis' Courses.

The preliminary examination for selection of candidates for the Pandits' and 'Moulvis' Courses shall be held on Thursday the 23rd February 1939 in the College as per scheme of examination noted below.

Persons seeking admission to the Pandits Course shall have passed the Mysore Vernacular Upper Secondary or the S. S. L. C. Examination with Kannada or Sanskrit as second language or Sanskrit as an additional subject or the Vernacular Teachers' Certificate Examination or the Sanskrit Vidwat Final Examination conducted by the Board for Sanskrit Education and Examinations, Bangalore or Mysore.

Persons seeking admission to the Moulvi Course shall have passed the Mysore Upper Secondary Examination with Arabic as second or optional additional language, or the S. S. L. C. Examination with Urdu or Arabic as second language or as additional subject, or the Vernacular Teachers' Certificate Examination with Arabic as an additional subject.

The Selection Examination will be compulsory for all persons whether they are in departmental service or not.

Candidates will be admitted to this course on the basis of the results of the examination held for the selection of candidates for admission.

No departmental employee beyond the age of 35 years shall be permitted by the District Educational Officers or the School Board Officers to sit for the Selection Examination.

Date	Time	Subject	Marks
	PANDITS' COURSE.		
23rd February 1939 ...	11 A.M. to 1 P.M. ...	Kannada Language (General) ...	100
	2 P.M. to 4 P.M. ...	Grammar and Composition ...	100
	MOULVIS' COURSE.		
Do ...	11 A.M. to 1 P.M. ...	Urdu Language (General Grammar and Composition).	100
	2 to 3-30 P.M. ...	Arabic Language and Grammar (General) ...	100
	4 to 5 P.M. ...	Translation (Arabic and Urdu) ...	100

R. K. SANGAMESWARAN,
Principal.

OFFICE OF THE DISTRICT EDUCATION AND SCHOOL BOARD OFFICER, MYSORE.

Notification No. Cl. D. 12-1—38-39, *dated* 4—7*th January* 1939.

Name of Venkatesiah, No. 9, III Year Class, Government Middle School, Halagur, who is awarded Depressed Class Scholarship notified as per this office notification cited above dated 7th September 1938, should be read as Venkatiah.

A. VASUDEVA RAO,
District Educational Officer.

FINANCIAL DEPARTMENT

KOLAR DISTRICT.

Notification.

It is hereby notified for general information that the Savings Bank Depositors of Malur Taluk Treasury may present their Savings Bank Pass Books at the Taluk Treasury for calculation of interest for the year 1937-38 at any time during office hours on any working day.

J. B. MALLARADHYA,
For *Deputy Commissioner,*
Treasury Department.

KADUR DISTRICT.

Notification No. L. Dis. A 5.-74—38-39, *dated Chikmagalur*, 21*st December* 1938.

The Depositors in Government Savings Bank at Kadur Taluk Treasury are hereby informed that they may present their Pass Books for addition of interest for 1937-38 on any working day during office hours.

B. S. RAGHAVENDRA RAO,
Deputy Commissioner,
Treasury Department.